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ESP8266EX:

AT COMMAND EXAMPLES

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Version Info

Date	Version	Author	Changes	Comments
2014.7.16	0.1	Yu Fei	Draft	

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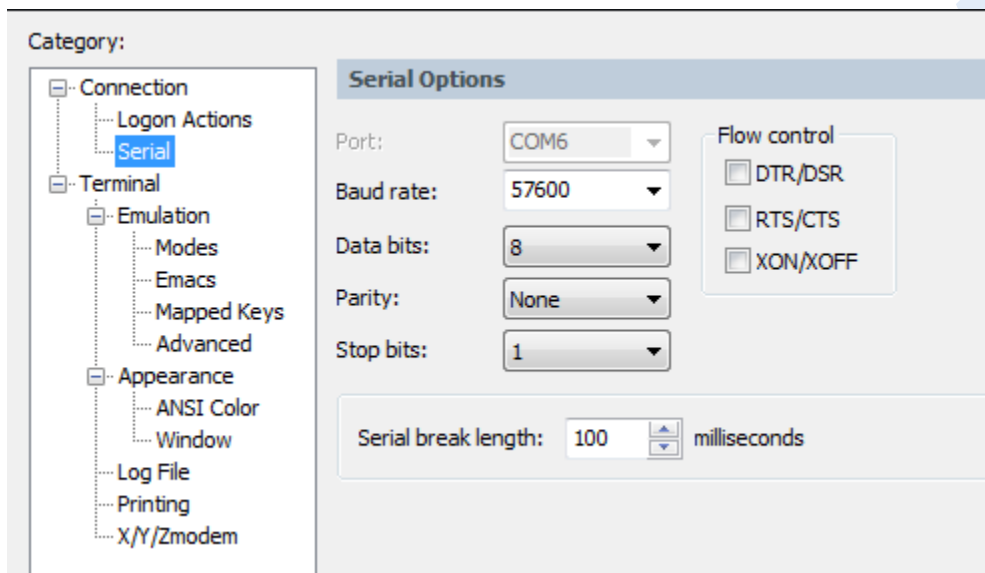September 4, 2014

1. Foreword

Herein contains examples for the usage of Espressif AT Commands. For the complete instruction set, please refer to Espressif AT Instruction Set documentation.

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2. User Guide

2.1. How to Start

(1) First flash in blank.bin (contains default Wi-Fi parameter settings) into the ESP8266EX device, then flash in the BIN program (from SDK) that supports AT commands.
(2) Power on device and set serial baud rate to 57600. Enter AT commands.

2.2. Single Connection to Client

(1) Set Wi-Fi mode:

AT+CWMODE=3   // softAP+station mode
Response: OK

(2) Reboot to take effect:

AT+RST
Response: OK

(3) Connect to router:

AT+CWJAP="ssid","password"   *// enter the ssid and password of router*
Response: OK

(4) Query router's IP

AT+CIFSR
Response: 192.168.3.106   *// return router's IP address*

(5) Using a network tool on the computer to create a server:

(6) Connect to server from device:

AT+CIPSTART="TCP","192.168.3.116",8080
// enter protocol, server IP, port no.
Response: OK

(7) Transmit data:

AT+CIPSEND=4   *// send 4 bytes*
>DGFY   *// enter 4 bytes of data, no CR*
Response: SEND OK

Note: If the number of bytes sent is bigger than the size defined (n), will reply busy, and after sending n number of bytes, reply SEND OK.

(8) Receive data:

+IPD,n:xxxxxxxxxx   *// received n bytes, data=xxxxxxxxxx*

2.3. Single Connection to Server

(1) Set Wi-Fi mode:

AT+CWMODE=3   *// softAP+station mode*
Response: OK

(2) Reboot to take effect:

AT+RST
Response: OK

(3) Setup server:
AT+CIPSERVER=1   *// default port = 333*
Response: OK

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(4) Computer connects to device's softAP, and acts as client.

Note: ESP8266EX acting as server has a timeout mechanism. When connection is established and no data is transmitted within a period of time, it will disconnect the client. Please setup a recurring packet transmission every 2s on the computer to ensure connection is maintained.

(5) Transmit data:

AT+CIPSEND=4   *// send 4 bytes*
>idos   *// enter 4 bytes of data, no CR*
Response: SEND OK

Note: If the number of bytes sent is bigger than the size defined (n), will reply busy, and after sending n number of bytes, reply SEND OK.

(6) Receive data:

+IPD,n:xxxxxxxxxx   *// received n bytes, data=xxxxxxxxxx*

Note: The examples given are only for single connection. For multiple connections please refer to Espressif AT Instruction set for details.